

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

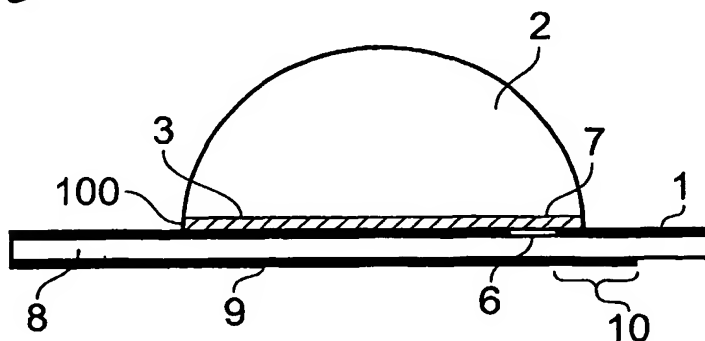
(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
2 October 2003 (02.10.2003)

PCT

(10) International Publication Number
WO 03/081719 A1

- (51) International Patent Classification⁷: H01Q 9/04, 21/08
- (21) International Application Number: PCT/GB03/01326
- (22) International Filing Date: 26 March 2003 (26.03.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0207052.2 26 March 2002 (26.03.2002) GB
- (71) Applicant (for all designated States except US): ANTEN-
OVA LIMITED [GB/GB]; Far Field House, Albert Road,
Stow-cum-Quy, Cambridge CB5 9AR (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KINGSLEY, Si-
mon, Philip [GB/GB]; Far Field House, Albert Road,,
Stow-cum-Quy, Cambridge, CB5 9AR (GB). O'KEEFE,
Steven, Gregory [AU/AU]; 74-78 Shiels Road, Chambers
Flat, QLD 4133 (AU). PALMER, Tim, John [GB/GB];
Far Field House, Albert Road, Stow-cum-Quy, Cambridge
CB5 9AR (GB). KINGSLEY, James, William [GB/GB];
Far Field House, Albert Road,, Stow-cum-Quy, Cambridge,
CB5 9AR (GB).
- (74) Agent: HARRISON, Goddard, Foote; Belgrave Hall,
Belgrave Street, Leeds LS2 8DD (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:
— Partnership (Rule 4.17(iv)) for US only
- International search report
- For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DIELECTRIC RESONATOR ANTENNA



(57) Abstract: There is disclosed a dielectric resonator antenna adapted to resonate in an EH_{118} resonance mode, and also a method for the manufacture thereof. The desired resonance mode is achieved by careful positioning of a dielectric resonator (2) on a grounded substrate (1), the resonator (2) being fed by way of a microstrip feed line (9) and a slot (6) in the grounded substrate (1). Because the EH_{118} resonance mode has nulls in a direction of longitudinal

extension of the dielectric resonator (2), a plurality of antenna can be placed end-to-end so as to form an array with reduced coupling between adjacent antennas and with vertical polarisation, which is desirable for mobile communications applications.